

REMARKS

Upon entry of the amendments herein, claims 1, 2, 4, 7, 9, 10, 12, 13 and 27-30 are pending in the application. Claims 1, 7, 9 and 10 have been amended; and claims 6, 8, 25 and 26 have been cancelled. No new matter has been introduced by the amendments made herein to the claims.

Claims 1 and 6 have been rejected under 35 USC §112, first paragraph as not being enabled for the scope of heterorings recited. The Examiner has acknowledged enabling disclosure for rings containing O and/or N atoms, but asserts that the specification does not reasonably provide enablement for heterorings that are ones "with other hetero atoms." From this, Applicants conclude that the Examiner is alleging nonenablement of rings containing S atoms. In response to the Examiner's assessment, Applicants point out the guidance provided in the specification on, for example, page 5, lines 14-25, which disclosure specifically includes heterorings, both aromatic and nonaromatic, containing an S atom and more generally provides teaching as to the meaning of term in question.

The Examiner goes on to state that "[T]he specifications do not provide any guidance as to which groups are included" in the genus of 5-, 6- or 7-membered heterocyclic rings recited in the rejected claims. Again, the Examiner is referred to the above-mentioned specification passage. The statement that no guidance is provided is clearly in error.

The Examiner goes on to state that the groups that are described in the specification are "provisoed out" in the claims and that the specification has "a description of the heterocyclic groups that are NOT claimed." Again, there is no basis whatsoever for this assessment.

As pointed out by Applicants in their April 22, 2004 Preliminary Amendment (see the paragraph bridging the bottom of page 21 and top of page 22 of that document), the "provisos" to which the Examiner refers were introduced by Applicants in an effort to ensure that compounds claimed in U.S. Patent No. 6,479,497, from which the present application is descended, are not claimed again in the instant application. The instant application exists only because the Examiner leveled a restriction requirement in the grandparent application (from which the '497 patent issued). Applicants filed the present application to resume prosecution of subject matter restricted out of that previously allowed application.

The only compounds that have been "provisoed out" of the presently claimed genus are those of corresponding claim 1 of U.S. Patent No. 6,479,497 wherein when substituent R₄ is a heteroring, it is "an optionally substituted 5- or 6-membered heterocyclic ring containing one or two heteroatoms which is (are) N" or "an optionally substituted 5- or 6-membered heteroaromatic ring containing one or two heteroatoms which is (are) N." Again, with reference to the specification passages

cited above, there are clearly a number of heterorings, both 5-containing and otherwise, described in the instant specification that have not been "provisoed out" of the instant claims. This rejection must be withdrawn.

Claims 1 and 6 have also been rejected under 35 USC §112, second paragraph as being indefinite. Again, this is about the recitation of heterocyclic rings in the present claims; the Examiner asserts that "it is not clear which groups the applicants actually mean." Again, the Examiner is referred to the instant disclosure on page 5 and is asked to withdraw this rejection.

Claims 13 and 25-28 have been rejected under 35 USC §112, second paragraph as being indefinite. In the first place, the Examiner maintains that recitation of the "treatment of 5-hydroxytryptamine-mediated disorders" in claims 13 and 27 makes them "reach-through" claims. Applicants note that claims of the same form were allowed by the present Examiner in grandparent application Serial No. 09/171,570 and parent application Serial No. 10/285,743, now U.S. Patent Nos. 6,479,497 and 6,670,359, respectively (see claim 10 of the '497 patent and claims 10 and 11 of the '359 patent). There is no valid reason why the claims of this form in the present application are any less patentable than those allowed in the predecessor applications. The rejection of claims 13 and 27 should also be withdrawn.

As part of the same rejection, the Examiner has singled out

claims 25, 26 and 28 as reciting a "laundry list of diseases" and has asserted that the "drugs do not have a [sic] umbrella efficacy of treating the several diseases." In the first place, the cancellation of claims 25 and 26 renders moot their rejection. This action is not an acknowledgment of the validity of the rejection; it has been taken in the interests of expediting prosecution and to make the method-of-treatment claims in the present application uniform with those allowed in the grandparent and parent applications.

As for claim 28, Applicants note that it actually constitutes a claim of more limited scope than, for example, claim 27 and, further, that a claim of precisely this form was allowed by the present Examiner in parent application Serial No. 10,285,743 (now U.S. Patent No. 6,670,359 (see claim 12)). Applicants are entitled to protection for this scope of disorders to be treated for the same reasons they were entitled to such protection in the parent application.

Claims 1, 2, 4, 6-10, 12, 13 and 25-30 have been rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over claims 1-11 of U.S. Patent No. 6,479,497. Again, Applicants had previously amended the claims in an effort to distinguish the presently claimed subject matter from that claimed in the '497 patent. Claim 1 has been further amended herein to complete this effort. As the Examiner must acknowledge in view of the restriction requirement she imposed

in the grandparent application, the subject matter now claimed is patentably distinct from that claimed in the '497 patent, the patent that issued from that grandparent; the rejection is moot. The amendments to claim 1 necessitated amendment or cancellation of some of the claims dependent therefrom.

Claims 1, 2, 4, 6, 10, 12, 13 and 25-30 have also been rejected on the grounds of obviousness-type double patenting over claims 1-27 of U.S. Patent No. 6,387,899. Even without the amendments herein to claim 1, there is no basis for this rejection.

Contrary to the Examiner's assertion, the claims of the cited patent are not drawn to "compounds of a larger scope which include the compounds of the invention." The Examiner has neglected the fact that claim 1 of the '899 patent recites a generic formula including a substituent R₉ on the phenyl-ring portion of the chroman core. This substituent is defined as many things but one of them is not H; in other words, this phenyl-ring portion must be substituted. On the other hand, the instant generic formula provides for no equivalent whatsoever of the R₉ substituent; the phenyl-ring portion of the instant chroman core cannot be substituted.

Thus, there is no overlap between claim 1 of the '899 patent and instant claim 1 with respect to the scope of the recited compounds. It should also be noted that no issues of obviousness-type double patenting over the '899 patent were ever

raised by the Examiner during prosecution (to allowance) of the predecessors to the instant application. This rejection should also be withdrawn.

Claim 30 has further been rejected on the grounds of obviousness-type double patenting over claims 1 and 2 of U.S. Patent No. 6,384,225. Contrary to the Examiner's assessment, the same intermediates are not taught by the '225 patent, nor are the intermediates used to prepare the same compounds. This rejection is inappropriate for reasons along the same lines that the rejection of the instant end-product claims over the claims of the '899 patent is inappropriate. Just as there is no overlap between the end products of the two application families and just as said end products of the respective application families have been found to be patentably distinct from each other (as evidenced by the issuance of patents from both application families, and without any obviousness-type double patenting issues being raised), the respective genera of intermediates are distinct from each other and this rejection should be withdrawn as well.

As set forth above, the enablement and indefiniteness issues raised by the Examiner are without merit and should be withdrawn. Furthermore, the instantly claimed compounds, compositions, methods of use, processes and intermediates are patentably distinct over those found in the cited claims of the three patents invoked by the Examiner. Reconsideration and

allowance of the application with pending claims 1, 2, 4, 7, 9, 10, 12, 13 and 27-30 are respectfully requested. Should any other matters require attention prior to allowance of this application, it is requested that the Examiner contact the undersigned.

The Commissioner is hereby authorized to charge any additional fees which may be due for any reason in connection with this communication to Deposit Account No. 23-1703.

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Respectfully submitted



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